

WHAT IS CLAIMED IS:

1. An information storage medium comprising:
a user area to store user data;
a defect management area to store defect
5 information associated with defects on the user area;
and
an overwrite management area to store overwrite
information associated with an overwrite count for the
defect management area.
- 10 2. A medium according to claim 1, further
comprising an auxiliary defect management area on which
the defect information is replacement-recorded in
accordance with the overwrite count indicated by the
overwrite information.
- 15 3. A medium according to claim 1, further
comprising an auxiliary defect management area on which
the defect information is replacement-recorded in
accordance with a defect generation state in the defect
management area.
- 20 4. A medium according to any one of claim 1,
wherein the defect management area includes the
overwrite management area.
5. A medium according to claim 1, wherein the
defect management area includes a plurality of areas
25 used to redundantly store a plurality of pieces of the
defect information, and
the information storage medium comprises

a plurality of auxiliary areas used to simultaneously
replacement-record the plurality of pieces of defect
information stored in the plurality of areas in
accordance with the overwrite count indicated by the
5 overwrite information.

6. A medium according to claim 1, wherein the
defect management area includes a plurality of areas
used to redundantly store a plurality of pieces of the
defect information, and

10 the information storage medium comprises a
plurality of auxiliary areas used to simultaneously
replacement-record the plurality of pieces of defect
information stored in the plurality of areas in
accordance with a defect generation state in the defect
15 management area.

7. An information recording apparatus for
recording information on an information recording
medium, which has a user area to store user data,
a defect management area to store defect information
20 associated with defects on the user area, and
an overwrite management area to store overwrite
information associated with an overwrite count for the
defect management area, comprising:

a recording unit to record the user data, the
25 defect information, and the overwrite information; and

a recording control unit to control the recording
unit to record the defect information on the defect

management area, and to record the overwrite information on the overwrite management area in correspondence with the recording operation.

5 8. An apparatus according to claim 7, further comprising a replacement-recording unit to replacement-record the defect information on an auxiliary defect management area in accordance with the overwrite count indicated by the overwrite information.

10 9. An apparatus according to claim 7, further comprising a replacement-recording unit to replacement-record the defect information on an auxiliary defect management area in accordance with a defect generation state on the defect management area.

15 10. An apparatus according to any one of claim 7, wherein the recording unit controlled by the recording control unit records the overwrite information on the overwrite management area included in the defect management area.

20 11. An apparatus according to claim 7, wherein the recording unit controlled by the recording control unit redundantly records a plurality of pieces of the defect information on a plurality of areas included in the defect management area, and

25 the information recording apparatus comprises a replacement-recording unit to replacement-record the plurality of pieces of defect information recorded on

the plurality of areas to a plurality of auxiliary areas in accordance with the overwrite count indicated by the overwrite information.

12. An apparatus according to claim 7, wherein the
5 recording unit controlled by the recording control unit redundantly records a plurality of pieces of the defect information on a plurality of areas included in the defect management area, and

the information recording apparatus comprises
10 a replacement-recording unit to replacement-record the plurality of pieces of defect information recorded on the plurality of areas to a plurality of auxiliary areas in accordance with a defect generation state on the defect management area.

13. An information recording method for recording
15 information on an information recording medium, which has a user area to store user data, a defect management area to store defect information associated with defects on the user area, and an overwrite management
20 area to store overwrite information associated with an overwrite count for the defect management area, comprising:

recording the defect information on the defect
management area, and recording the overwrite
25 information on the overwrite management area in correspondence with the recording operation.

14. A method according to claim 13, further

comprising replacement-recording the defect information on an auxiliary defect management area in accordance with the overwrite count indicated by the overwrite information.

5 15. A method according to claim 13, further comprising replacement-recording the defect information on an auxiliary defect management area in accordance with a defect generation state on the defect management area.

10 16. A method according to any one of claim 13, further comprising recording the overwrite information on the overwrite management area included in the defect management area.

15 17. A method according to claim 13, further comprising:

redundantly recording a plurality of pieces of the defect information on a plurality of areas included in the defect management area; and

20 replacement-recording the plurality of pieces of defect information recorded on the plurality of areas to a plurality of auxiliary areas in accordance with the overwrite count indicated by the overwrite information.

25 18. A method according to claim 13, further comprising:

redundantly recording a plurality of pieces of the defect information on a plurality of areas included in

the defect management area; and

replacement-recording the plurality of pieces of defect information recorded on the plurality of areas to a plurality of auxiliary areas in accordance with a defect generation state on the defect management area.

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